ABSTRACT

A non-aqueous electrolyte secondary battery is provided with a positive electrode, a negative electrode, a separator interposed between the positive electrode and the negative electrode, and a non-aqueous electrolyte, wherein positive electrode active material is a mixture of lithium-manganese composite oxide having spinel structure represented by a general formula $Li_{1+z}Mn_2O_4$ (wherein a relationship $0 \leq z \leq 0.2$ is satisfied) and lithium-transition metal composite oxide represented by the general formula $LiNi_{1-x-y}Co_xMn_yO_2$ (wherein the relationships $0.5 < x+y < 1.0$ and $0.1 < y < 0.6$ are satisfied), and negative electrode active material is graphite coated with low crystalline carbon where whole or a part of a surface of first graphite material as a substrate is coated with second carbon material which is lower in crystallinity compared with the first graphite material.